

INDIUM STATISTICS

By Carl A. DiFrancesco and Micheal George

[All values in metric tons (t) unless otherwise noted]

Last modification: November 8, 2004

Year	Production	Imports	Exports	Stocks	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1936					0.04	965,000	11,300,000	
1937					0.07	965,000	10,900,000	
1938					0.11	965,000	11,200,000	
1939					0.15	965,000	11,300,000	
1940					0.18	739,000	8,600,000	
1941	0.218				0.22	402,000	4,460,000	
1942	0.653				0.65	723,000	7,230,000	
1943	1.85				1.9	402,000	3,790,000	
1944	2.56				2.6	281,000	2,600,000	
1945	1.79	0.041			1.8	157,000	1,430,000	
1946	0.301	0.155			0.46	72,300	603,000	
1947	0.433	0.271			0.70	72,300	528,000	
1948	0.380	0.451			0.83	72,300	489,000	
1949	1.70	0.645			2.3	72,300	495,000	
1950	3.91				3.9	72,300	489,000	
1951	4.76				4.8	72,300	452,000	
1952					4.4	72,300	444,000	
1953					4.0	72,300	441,000	
1954					3.5	72,300	438,000	
1955					3.1	72,300	441,000	
1956	2.72				2.7	72,300	433,000	
1957					3.0	72,300	420,000	
1958					3.3	72,300	408,000	
1959					3.5	72,300	404,000	
1960					3.8	72,300	397,000	
1961					4.1	72,300	395,000	
1962					4.4	72,300	391,000	
1963					4.7	72,300	385,000	
1964					4.9	77,200	406,000	
1965					5.2	88,400	458,000	
1966	5.51				5.5	88,400	444,000	
1967	1.90	9.02			11	88,400	431,000	
1968	2.66	8.74			11	80,400	377,000	
1969	1.96	8.80			11	80,400	357,000	
1970		12.5			13	80,400	338,000	
1971		12.1			12	80,400	324,000	
1972		19.5			20	80,400	314,000	68.4
1973		25.2			25	56,900	209,000	54.1
1974		15.3			15	142,000	469,000	56.0
1975		3.54			3.5	182,000	551,000	46.7
1976		9.02			9.0	258,000	739,000	46.5
1977		9.05			9.1	314,000	845,000	40.4
1978		6.41			6.4	275,000	688,000	44.5
1979		9.14			22	433,000	972,000	46.7
1980		9.30			19	547,000	1,080,000	49.8
1981		14.3			16	242,000	434,000	43.5
1982		21.3			16	134,000	226,000	49.8
1983		33.4			16	103,000	169,000	23.3
1984		31.8			19	96,500	151,000	29.5
1985		30.5			19	84,600	128,000	29.5
1986		43.0			22	83,900	125,000	41.1
1987		47.3			25	235,000	337,000	53.5

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1988		38.1			28	319,000	440,000	106
1989		26.8			28	275,000	362,000	115
1990		30.2			30	230,000	287,000	118
1991		36.3			30	218,000	261,000	140
1992		54.4			30	225,000	261,000	140
1993		73.4		0.80	35	207,000	234,000	140
1994	0	70.2		1.60	40	143,000	157,000	145
1995	0	85.2		1.60	43	388,000	415,000	239
1996	0	33.2		1.60	45	381,000	396,000	200
1997	0	85.5		0.44	50	319,000	324,000	230
1998	0	75.0		0.44	50	306,000	306,000	230
1999	0	77.4	25	0	52	303,000	294,000	215
2000	0	69.4	15	0	55	188,000	178,000	335
2001	0	79.4	10	0	65	120,000	111,000	345
2002	0	112	10	0	85	97,000	87,900	335

Indium Worksheet Notes

Data Sources

The sources of data for the indium worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB), Mineral Commodity Summaries (MCS) and its predecessor, Commodity Data Summaries (CDS), and Metal Prices in the United States through 1998 (MP98). The years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data were not available.

Production

Production data were for refined indium. Data for the years 1956 and 1966–69 were for Anaconda only, with data from the ASARCO facilities in Denver, CO, and Perth Amboy, NJ, not available. Data were from the MYB. Blank cells in the worksheet indicate that data were not available for the years 1936–40, 1952–55, 1957–65, and 1970–93.

Imports

Imports data report the amount of indium content in wrought, unwrought, and scrap and waste indium imported into the United States. Data were from the MYB for the years 1945–49 and 1967–73, and the CDS and the MCS for the years 1974–2002. Blank cells in the worksheet indicate that data were not available for the years 1936–44 and 1950–66.

Exports

Exports data report the amount of contained indium exported. Data were from the MYB. Blank cells in the worksheet indicate that data were not available for the years 1936–98.

Stocks

Stocks data report the amount of contained indium held in government stocks and do not include producer, consumer, or dealer stocks. Data were from the CDS and the MCS. Blank cells in the worksheet indicate that data were not available for the years 1936–92.

Apparent Consumption

Apparent consumption figures were developed based on the following considerations:

- They were limited to two significant figures based on broad assumptions that had to be made throughout the period covered—1936–2000.
- Apparent consumption figures for the years 1936–40 were interpolated by assuming that apparent consumption before 1936 was equal to zero (no statistics reported), as production and use were minimal. A 60% price drop in December of 1940 and increased wartime demand, especially protection of bearings for engines and machines, caused demand and consumption to rise.
- Apparent consumption was estimated for the years 1941–51, 1956, and 1966–78 using the formula:

$$\text{APPARENT CONSUMPTION} = \text{PRODUCTION} + \text{IMPORTS} - \text{EXPORTS} \pm \text{CHANGES IN STOCKS.}$$

- No imports, exports, or stocks data were available for the years 1941–44, 1950–51, 1956, and 1966 and were assumed equal to zero to calculate apparent consumption.
- No exports or stocks data were available for the years 1945–49 and 1967–69 and were assumed to be zero when apparent consumption was calculated.
- The values for apparent consumption were interpolated for the years 1952–55 and 1957–65.
- Domestic consumption data from the MCS were used as an estimate for apparent consumption for the years 1979–89 and 1992 and from the MYB for the years 1990–91 and 1993–2002.

Apparent consumption since the early 1970s may be an inaccurate indicator of domestic consumption because much of the indium was probably exported as components in “high tech” final products.

Unit Value (\$/t)

Unit value is the value, in current dollars, of 1 metric ton (t) of indium apparent consumption. Unit value was calculated using price data from the MP98 for refined indium for the years 1936–98 and from the MCS for 1999–2002.

Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

World Production

World production data were for smelter production of indium for the years 1972–74 and for refined indium for the years 1975–2002. Data were from the CDS, MCS, and MYB. Blank cells in the worksheet indicate that data were not available for the years 1936–71. World production data for the years 1972–2002 do not contain U.S. production.

References

U.S. Bureau of Mines, 1943–96, Minerals Yearbook, 1941–94.
U.S. Bureau of Mines 1974–77, Commodity Data Summaries, 1974–77.
U.S. Bureau of Mines 1978–95, Mineral Commodity Summaries, 1978–95.
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For more information, please contact:

Micheal George
USGS Indium Commodity Specialist
(703) 648-4962
mgeorge@usgs.gov

Carl A. DiFrancesco
Minerals and Materials Analysis Section, USGS
(303) 236-8747 x 324
difrance@usgs.gov